

III. Remarks

A. Introduction

Reconsideration and allowance of the present application are respectfully requested. Claims 1 and 41 are independent and are amended. No new matter has been introduced.

B. Unexpected Results is Commensurate in Scope with Claims 1 and 41 and the Rejection under 35 U.S.C. § 103(a) is Traversed

Independent Claims 1 and 41, and dependent Claims 31, 32, 42 and 43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over GB2193972 to Csikos et al. (hereinafter “Csikos”) in view of a press release from Crompton Corporation dated January 7, 2003, and U.S. Patent No. 5,981,632 to Fields (hereinafter “Fields”). This rejection is traversed by the evidence of unexpected results provided in the specification.

Independent Claim 1, as amended, now recites: “0.25 wt. % of an antioxidant selected from the group consisting of butylated (30%) and octylated (24%) diphenylamine and butylated (45%) and octylated (19%) diphenylamine and 0.25 wt% of a 1,3,5-tris(2-hydroxyethyl)-S-triazine.” Independent Claim 41, as amended, now recites: “0.25 wt% of a nonylated diphenylamine and 0.25 wt% of a 1,3,5-tris(2-hydroxyethyl)-S-triazine.” The Office Action cites Csikos for teaching antioxidants, but Csikos fails to teach the specific antioxidants, such as butylated diphenylamine, in independent Claim 1, and nonylated diphenylamine, in independent Claim 41. (*See* Office Action, Page 2). To remedy this deficiency of Csikos, the Examiner turns to Crompton Corporation for teaching butylated diphenylamine and nonylated diphenylamine. (*See* Office Action, Page 3). Further the Office Action cannot cite any portion of Csikos for teaching the biocide recited in Claims 1 and 41, and turns to Fields. Fields is only offered for teaching a biocide and does not disclose any diphenylamine. One of ordinary skill in the art would not have a rationale for combining the references as alleged by the Examiner due to the unexpected results achieved by the compositions recited in Claims 1 and 41.

Claim 1 has been amended to be commensurate in scope with the unexpected results for butylated diphenylamine identified in the specification on page 20, lines 1-18 (Table 2; Example 18), and page 27, lines 1-21 (Table 3, Example 33). None of the cited references provide a showing of the unexpected results for butylated diphenylamine that are recited in the claims. In particular in Table 1, Example 2 contains 0.5 wt% of biocide (Triadine 3: 1,3,5-tris(2-hydroxyethyl)-S-triazine) and achieves a 14-week bacteria onset following a 1 day incubation period under ASTM 3946. However, when the antioxidant, butylated (30%) and octylated (24%) diphenylamine (commercially available as Naugalube 640) is added the bacteria onset is greater than 18 weeks. Example 33, butylated (45%) and octylated (19%) diphenylamine, shows a bacteria onset of 19 weeks in Table 3. Thus, it would be unexpected that an antioxidant would increase the ability of the biocide to prevent biological degradation.

Claim 41 has been added to be commensurate in scope with the unexpected results for nonylated diphenylamine identified in the specification on page 16, lines 7-21 (Table 1; Example 6). None of the cited references provide a showing of the unexpected results for nonylated diphenylamine that are recited in the claims. In particular in Table 1, Example 2 contains 0.5 wt% of biocide (Triadine 3: 1,3,5-tris(2-hydroxyethyl)-S-triazine) and achieves a 14-week bacteria onset following a 1 day incubation period under ASTM 3946. However, when the antioxidant, nonylated diphenylamine (commercially available as Naugalube 438L) is added the bacteria onset is greater than 18 weeks. Thus, it would be unexpected that an antioxidant would increase the ability of the biocide to prevent biological degradation.

The metal working fluid in Claims 1 and 41 has been amended to further clarify the scope of the claims. The term SOB used in the application refers to “soluble base oils,” as described on page 11, lines 1-3. “Shell MVI 100” refers to naphthenic mineral oil available from Shell which was used for metalworking. Note that “Shell MM 100” in Table 1 (page 16) is a typographical error, which has been corrected by this amendment. “R14D” is a blend of emulsifiers used to emulsify a naphthenic basestock.

Therefore independent Claims 1 and 41 are commensurate with the scope of the unexpected results and thus are patentable over the cited references.

D. Conclusion

In view of the above remarks, it is believed that this application is in condition for allowance, and a Notice thereof is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3536. All correspondence should continue to be directed to the below-listed address.

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